

CLAIMS:

1. A method of manufacturing composite products, wherein a plurality of elements are assembled by gluing them together under pressure, comprising the steps of:

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providing a number of elements to be assembled;

applying glue to at least one surface of each element;

10 assembling the elements to the desired structure; and

subjecting the assembled elements to pressure in a press;

controlling the amount of at least one component of the glue, applied at a specific point
15 of glue application on an element, to be a function of the waiting time it takes before the point
of glue application is subjected to the pressure in the press.

2. The method according to claim 1, wherein the glue is a multi-component adhesive, one
component of which is a hardener and wherein the amount of one of said adhesive
20 components is controlled so as to control the ratio between hardener and remaining
components to be a function of the waiting time.

3. The method according to claim 2, wherein the glue is a two-component adhesive
comprising hardener and a glue, the ratio hardener:glue is controlled to be lower for longer
25 waiting times.

4. The method according to claim 1, wherein the glue is a one-component glue, and the
amount of is increased as a function of increased waiting time.

30 5. The method according to claim 4 wherein the amount of glue applied to each element is
constant over the surface of said element, but varies between elements.

6. The method according to claim 4, wherein the first element in a series of elements
receives a smaller amount of glue than subsequent elements.

7. The method according to claim 4, wherein the amount of glue applied to each element varies over the surface of said element.

8. The method according to claim 4, wherein the amount of glue applied is controlled by
5 controlling the speed of movement of the element(s) during glue application

9. The method according to claim 8, wherein the amount of glue applied is controlled by
controlling the rate of application of glue onto the surface of each element.

10 10. The method according to claim 8, wherein the speed of movement is varied from one
element to another.

11. The method according to claim 8, wherein the speed of movement is varied during the
glue application on each element.

15 12. The method according to claim 11, wherein the speed of movement is varied stepwise
or continuously.

13. The method according to claim 9, wherein the application rate is varied stepwise or
20 continuously.

14. An apparatus for the manufacturing of composite products, wherein a plurality of
elements are assembled by gluing them together under pressure, comprising

25 an element feeder (6; 16);

a glue applicator (10);

a stacking unit (12);

30 a control unit (15); and

a press (17);

said control unit (15) being programmable to run a control sequence for the glue applicator (10) and/or the element feeder (6; 16) to provide an optimal applied glue amount.

15. The apparatus as claimed in claim 12, wherein the control sequence is adapted
5 to control the speed of movement of the feeder (6; 16), and thereby of the elements through
the glue applicator (10).

16. The apparatus as claimed in claim 14, wherein the control sequence is adapted
to control the rate of glue application to the elements.

10 17. An apparatus for the controlled application of glue to elements to be assembled
to a composite structure, comprising

15 an element feeder (6; 16);

a glue applicator (10); and

20 a control unit (15);

said control unit (15) being programmable to run a control sequence for the glue
applicator (10) and/or the element feeder (6, 16) to provide an optimal applied glue amount.

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